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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,547	11/05/2003	Hirokazu Takemiya	Q78266	6082
23373	7590	08/17/2004	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			PECHHOLD, ALEXANDRA K	
			ART UNIT	PAPER NUMBER
			3671	

DATE MAILED: 08/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/700,547	TAKEMIYA, HIROKAZU	
	<b>Examiner</b>	<b>Art Unit</b>	
	Alexandra K Pechhold	3671	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 07 July 2004.

2a) This action is **FINAL**.                            2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) \_\_\_\_\_ is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-26 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____.
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-4, 9-17, and 22-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Shinohara (JP 05124843).**

Regarding claim 1, Shinohara discloses a method comprising disposing a plurality of adjoining column members and an elastic member, which can be viewed as plate members (4) and cushioning material (3), respectively in the embodiment of Figs. 5 and 6, or the layers (2A) and (2B) in the embodiment of Figs. 1-4. As Figs. 1 and 5 illustrate, these column members and elastic material are underground directly underneath or around the structure. The plate members (4) or (2A) form a hard layer contiguous with the cushioning material (3) or (2B), and inherently, generally the column members will have a greater stiffness than the surrounding ground due to the nature of the structure.

Regarding claim 2, the members (4) or (2A) are formed of rigid material such as steel or concrete.

Regarding claims 3 and 4, Shinohara illustrates the use of columns cylindrical in section in Figs. 5-7, and the plate members (4) are shown surrounding the elastic material (3).

Regarding claims 9 and 22, Shinohara illustrates in the embodiment in Fig. 4 the plate members (2A) formed by two rows disposed on opposite sides of the cushion layer (2B).

Regarding claims 10 and 23, a second hard layer can be viewed in Shinohara as another layer (2A) in Fig. 5, which thereby result in alternating layers of hard material and elastic material.

Regarding claims 11 and 24, Shinohara illustrates the elastic member laid underground in the embodiments in Figs. 1, 5, and 7, thereby mixed in with the surrounding soil.

Regarding claims 12 and 25, Shinohara discloses an elevated structure, referred to as structure (1), also seen in the figures.

Regarding claims 13 and 26, Shinohara illustrates a basic unit in the embodiments in Figs. 4 and 6, with the basic units arranged in a contiguous manner underground directly underneath or around the structure, as shown in Figs. 1 and 5.

Regarding claim 14, Shinohara discloses the limitations of the claimed invention as discussed in regards to the rejection of claim 1 above.

Regarding claim 15, Shinohara discloses the limitations of the claimed invention as discussed in regards to the rejection of claim 2 above.

Regarding claim 16, Shinohara discloses the limitations of the claimed invention as discussed in regards to the rejection of claim 3 above.

Regarding claim 17, Shinohara illustrates the use of columns cylindrical in section in Figs. 5-7.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 5 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinohara (JP 05124843) as applied to claim 1 above, and further in view of Toschi (EP 0819661).** Shinohara fails to disclose the use of scrap tires or pulverized scrap tire material. Toschi teaches the use of recycled scrap tires in damping structures as diaphragm walls or foundations, for example for roads, railroads, and the like (see abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the elastic cushioning material in Shinohara to comprise scrap tires as taught by Toschi, since Toschi states in column 3, lines 22-29 that recycling permits avoidance of a corresponding consumption of valuable materials like rubber, and also allows for a low production cost.

5. **Claims 6-8 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinohara (JP 05124843) as applied to claim 1 above, and**

**further in view of Toschi (EP 0819661).** Shinohara illustrates in Fig. 6 the column member, seen as (4), surrounding the elastic layer, seen as (3), but fails to disclose the recited hexagonal or square shape or triangular shape. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the shape of the units of Shinohara to comprise honeycomb, square, or triangular since such aesthetic designs are well within the skill of one designing the layers.

#### ***Response to Arguments***

6. Applicant's arguments filed 7/7/04 have been fully considered but they are not persuasive.

Applicant's claim amendments do not overcome the prior art. Applicant has amended claim 1 slightly as well as the dependent claims, and added new claims 14-26. Although applicant points out some differences in the operation of the mechanisms in Shinohara and the instant invention, the claim language is at issue here, and as recited, Shinohara alone or the combination of Shinohara with Toschi still reads on the claims. Furthermore, Shinohara discloses different embodiments in the figures, which anticipate the applicants varying dependent claims.

#### ***Conclusion***

7. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP

Art Unit: 3671

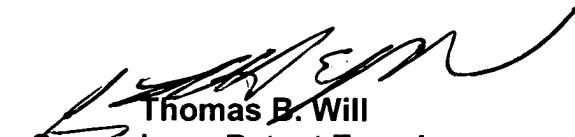
§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexandra Pechhold whose telephone number is (703) 305-0870. The examiner can normally be reached on Mon-Thurs. from 8:00am to 5:30pm and alternating Fridays from 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will, can be reached on (703)308-3870. The fax phone number for this Group is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1113.

  
Thomas B. Will  
Supervisory Patent Examiner  
Group 3600

8/10/04